



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/707,428	11/07/2000	Steve King	CROSS-1360-1	9715
25094	7590	11/05/2004		
GRAY, CARY, WARE & FREIDENRICH LLP 2000 University Avenue E. Palo Alto, CA 94303-2248			EXAMINER JACOBS, LASHONDA T	
			ART UNIT	PAPER NUMBER
			2157	

DATE MAILED: 11/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/707,428

Applicant(s)

KING ET AL.

Examiner

LaShonda T Jacobs

Art Unit

2157

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 30-38 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 41 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

This is Office Action in response to Applicants' amendment filed on July 22, 2004. Claims 1-38 are presented for further examination. Claims 39-41 newly added by Applicants' are also presented for examination.

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-29 and 39-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Scholl et al (hereinafter, "Scholl", 6,145,001).

As per claim 1, Scholl discloses a system for routing data across heterogeneous networks comprising:

- a first network having a first protocol (col. 2, lines 55-67, col. 3, lines 1-11, col. 5, lines 59-67, col. 6, lines 1-14 and lines 25-34; Scholl teaches that many different networks (SNMP, SNA, etc) may be used as the first or second network. Therefore, Scholl implicitly teaches first network having a first protocol);
- a storage area network having a second protocol, wherein the second protocol is incompatible with the first protocol (col. 2, lines 55-67, col. 3, lines 1-11, col. 5, lines

Art Unit: 2157

59-67, col. 6, lines 1-14 and lines 25-34; Scholl teaches that many different networks (SNMP, SNA, etc) may be used as the first or second network. Therefore, Scholl implicitly teaches a storage area network having a second protocol, wherein the second protocol is incompatible with the first protocol);

- a first device connected to the first network (col. 2, lines 55-67 and col. 3, lines 1-11);
- a second device connected to the storage area network (col. 2, lines 55-67 and col. 3, lines 1-11); and
- a switch coupled between the first network and the second network (col. 2, lines 55-67 and col. 3, lines 1-11);
- wherein requests from the first device to the second device are formatted according to the first protocol and transmitted to the switch, wherein at least one request from the first device contains a non-SCSI formatted request (col. 2, lines 55-67, col. 3, lines 1-11, col. 5, lines 59-67, col. 6, lines 1-14 and lines 25-34); and
- wherein the switch is configured to detect the requests and to reformat the requests according to the second protocol and transmit the requests to the second device (col. 2, lines 55-67, col. 3, lines 1-11, col. 5, lines 59-67, col. 6, lines 1-14 and lines 25-34).

As per claim 2, Scholl discloses:

- wherein the first network is an out-of-band network and the second network is an in-band network (col. 2, lines 55-67, col. 3, lines 1-11 and col. 7, lines 19-24).

As per claim 3, Scholl teaches:

- wherein the switch comprises an HTTP server coupled to an HTTP client, wherein the HTTP server is configured to receive the requests formatted according to the first

Art Unit: 2157

protocol from the first device and wherein the HTTP, client is configured to forward corresponding requests formatted according to the second protocol to the second device (col. 5, lines 60-67, col. 6, lines 1-14 and lines 25-34).

As per claim 4, Scholl discloses:

- wherein the system further comprises a default gateway coupled to the first network (col. 2, lines 55-67 and col. 3, lines 1-11).

As per claim 5, Scholl teaches:

- wherein the system further comprises a proxy server coupled to the first network (col. 7, lines 58-67 and col. 8, lines 1-14).

As per claim 6, Scholl teaches:

- wherein the system further comprises a firewall which is separate from the switch (col. 2, lines 55-67 and col. 3, lines 1-11).

As per claim 7, Scholl discloses:

- wherein the request includes an IP address corresponding to the switch and information identifying the second device and the subject of the request (col. 6, lines 1-14 and lines 44-57).

As per claim 8, Scholl discloses:

- wherein the switch is configured to receive the requests and to identify the requests as being directed to the second device (col. 2, lines 55-67, col. 3, lines 1-11, col. 5, lines 59-67, col. 6, lines 1-14 and lines 25-34).

As per claim 9, Scholl discloses:

Art Unit: 2157

- wherein each of the requests includes a keyword which indicates that the subject of the request should be forwarded to a device connected to the second network and wherein the switch is configured to identify the requests as being directed to the second device by detecting the keyword (col. 5, lines 60-67, col. 6, lines 1-14 and lines 44-57).

As per claim 10, Scholl discloses a method for routing data across heterogeneous networks comprising:

- formulating a first request for data in a first device, wherein the first request is not formatted according to a SCSI protocol (col. 2, lines 55-67, col. 3, lines 1-11, col. 5, lines 59-67, col. 6, lines 1-14 and lines 25-34);
- transmitting the first request to a switching device via a first network, wherein the first request is transmitted according to a first protocol (col. 5, lines 60-67 and col. 6, lines 1-14);
- formulating in the switching device a second request corresponding to the first request (col. 5, lines 60-67, col. 6, lines 1-14 and lines 44-57);
- transmitting the second request to a second device via a second network, wherein the second request is transmitted according to a second protocol and wherein the second protocol is incompatible with the first protocol (col. 5, lines 60-67 and col. 6, lines 1-14);
- formulating a first response in the second device, wherein the first response is responsive to the second request (col. 5, lines 60-67, col. 6, lines 1-14 and lines 44-57);

Art Unit: 2157

- transmitting the first response to the switching device via the second network, wherein the first response is transmitted according to the second protocol (abstract, col. 5, lines 57-67, col. 6, lines 1-14 and lines 44-57);
- formulating in the switching device a second response corresponding to the first response (col. 5, lines 60-67, col. 6, lines 1-14 and lines 44-57); and
- transmitting the second response to the first device, wherein the response is transmitted according to the first protocol (col. 5, lines 60-67, col. 6, lines 1-14 and lines 44-57).

As per claim 11, Scholl discloses:

- wherein the switching device comprises a server coupled to the first network and a client coupled to the second network, wherein transmitting the first request to the switching device comprises transmitting the first request to the server and wherein formulating the second request comprises the client formulating the second request (col. 2, lines 55-67, col. 3, lines 1-11, col. 5, lines 59-67, col. 6, lines 1-14 and lines 25-34).

As per claim 12, Scholl discloses:

- wherein the first request and the second request ask for the same data (col. 5, lines 60-67, col. 6, lines 1-14 and lines 44-57).

As per claim 13, Scholl discloses:

- wherein the first response and the second response provide the same data (col. 5, lines 60-67, col. 6, lines 1-14 and lines 44-57).

As per claim 14, Scholl teaches:

- wherein formulating the requests comprises formulating HTTP requests (col. 5, lines 59-67, col. 6, lines 1-14 and lines 25-34).

As per claim 15, Scholl discloses:

- wherein transmitting the first request to a switching device comprises transmitting the first request to a device other than a default gateway (col. 2, lines 55-67, col. 3, lines 1-11, col. 5, lines 59-67, col. 6, lines 1-14 and lines 25-34).

As per claim 16, Scholl discloses:

- wherein transmitting the first request to a switching device comprises transmitting the first request to a device other than a proxy server (col. 2, lines 55-67, col. 3, lines 1-11, col. 5, lines 59-67, col. 6, lines 1-14 and lines 25-34).

As per claim 17, Scholl discloses:

- wherein formulating the first request comprises formulating a uniform resource locator (URL) that includes an IP address corresponding to the switching device and information identifying the subject of the request (col. 5, lines 60-67, col. 6, lines 1-14 and lines 44-57).

As per claim 18, Scholl  
discloses:

- wherein formulating the first request comprises formulating a URL that further comprises an address of the second device (col. 5, lines 60-67, col. 6, lines 1-14 and lines 44-57).

As per claim 19, Scholl further discloses:

- switching device identifying the first request as being directed to a device connected to the second network (col. 2, lines 55-67, col. 3, lines 1-11, col. 5, lines 59-67, col. 6, lines 1-14 and lines 25-34).



Art Unit: 2157

As per claim 20, Scholl further discloses:

- switching device formatting the subject of the first request in the second request and forwarding the second request to the second device (col. 2, lines 55-67, col. 3, lines 1-11, col. 5, lines 59-67, col. 6, lines 1-14 and lines 25-34).

As per claim 21, Scholl further discloses:

- switching device identifying a keyword in the first request, wherein the keyword indicates the format of the information contained in the first request (col. 5, lines 60-67, col. 6, lines 1-14 and lines 44-57).

As per claim 23, Scholl discloses a network interface for enabling communications between a first network having a first protocol and a second network having a second protocol comprising:

- a server configured to receive a first request from a device on the first network, wherein the first request is a non-SCSI formatted request wherein the first request contains an indicator that the first request is directed to a device on the second network (col. 2, lines 55-67, col. 3, lines 1-11, col. 5, lines 59-67, col. 6, lines 1-14 and lines 25-34);
- a client coupled to the server and configured to receive information from the server indicating the device on the storage area network and the information requested from the device on the second network (col. 5, lines 60-67, col. 6, lines 1-14 and lines 44-57);
- wherein the client is further configured to generate a second request and to transmit the second request to the device on the second network (col. 5, lines 60-67, col. 6, lines 1-14 and lines 44-57);

Art Unit: 2157

- wherein the client is further configured to receive the requested information from the device on the second network and to convey the requested information to the server(col. 5, lines 60-67, col. 6, lines 1-14 and lines 44-57); and
- wherein the server is configured to transmit the requested information to the device on the first network (col. 5, lines 60-67, col. 6, lines 1-14 and lines 44-57).

As per claim 24, Scholl discloses:

- wherein the server is an HTTP server, the client is an HTTP client, and the first and second requests are uniform resource locators (URLs) (col. 5, lines 60-67, col. 6, lines 1-14 and lines 44-57).

As per claim 25, Scholl discloses:

- wherein the URL corresponding to the first request includes an address corresponding to the server and wherein the indicator comprises a predetermined key word (col. 5, lines 60-67, col. 6, lines 1-14 and lines 44-57).

As per claim 26, Scholl discloses:

- wherein the URL corresponding to the first request contains a URL following the key word, wherein the client is configured to produce the URL following the key word as the URL corresponding to the second request (col. 5, lines 60-67, col. 6, lines 1-14 and lines 44-57).

As per claim 27, Scholl discloses:

- wherein the TCP server is configured to detect URLs containing the key word and the TCP client is configured to generate new URLs corresponding to the detected URLs,

Art Unit: 2157

wherein the new URLs do not contain the key word (col. 5, lines 60-67, col. 6, lines 1-14 and lines 44-57).

As per claim 28, Scholl discloses

- wherein the client is configured to generate requests which are formatted according to a physical layer protocol that is different than the physical layer protocol according to which the first request is transmitted to the server (abstract, col. 5, lines 57-67, col. 6, lines 1-14 and lines 44-57).

As per claim 29, Scholl discloses:

- wherein the network interface comprises a switch containing the server and the client (abstract, col. 5, lines 57-67, col. 6, lines 1-14 and lines 44-57).

As per claim 39, Scholl discloses a system for routing data across heterogeneous networks comprising:

- a first network having a first protocol (col. 2, lines 55-67, col. 3, lines 1-11, col. 5, lines 59-67, col. 6, lines 1-14 and lines 25-34);
- a second network having a second protocol, wherein the second protocol is incompatible with the first protocol (col. 2, lines 55-67, col. 3, lines 1-11, col. 5, lines 59-67, col. 6, lines 1-14 and lines 25-34);
- a first device connected to the first network (col. 2, lines 55-67 and col. 3, lines 1-11);
- a second device connected to the second network (col. 2, lines 55-67 and col. 3, lines 1-11);
- a switch (gateway) coupled between the first network and the second network (col. 2, lines 55-67 and col. 3, lines 1-11);

Art Unit: 2157

- wherein the first device is configured to send an HTTP request according to the first protocol (col. 5, lines 60-67, col. 6, lines 1-14 and lines 25-34); and
- wherein the switch is configured to reformat the HTTP request to generate a second request according to a fiber channel protocol (col. 5, lines 60-67, col. 6, lines 1-14 and lines 25-34; The gateway in Scholl reformats the HTTP request in the appropriate format according the appropriate protocol (TCP/IP, frame relay etc.). Therefore, Scholl implicitly teach the switch is configured to reformat the HTTP request to generate a second request according to a fiber channel protocol).

As per claim 40, Scholl discloses:

- the HTTP request includes a keyword, wherein the keyword indicates the format of information in the HTTP request 9col. 7, lines 58-67 and col. 8, lines 1-14).

***Allowable Subject Matter***

3. Claims 30-38 are allowed.

4. The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not teach a keyword that indicates the format of the first request and parsing the first request based on the format to formulate a second request.

5. Claims 22 and 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

6. Applicant's arguments with respect to claims 1-29 and 39-40 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaShonda T Jacobs whose telephone number is 703-305-7494.


The examiner can normally be reached on 8:30 A.M.-5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 703-308-7562. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LaShonda T Jacobs  
Examiner  
Art Unit 2157

ltj  
October 28, 2004

  
SALEH NAJJAR  
PRIMARY EXAMINER